

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FP18654	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).	
International Application No. <b>PCT/AU2003/001390</b>	International Filing Date (day/month/year) 20 October 2003	Priority Date (day/month/year) 18 October 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. <sup>7</sup> B09B 3/00		
Applicant REGAIN TECHNOLOGIES PTY LTD et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.  
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheet(s).

3. This report contains indications relating to the following items:

- |      |                                     |   |
|------|-------------------------------------|---|
| I    | <input checked="" type="checkbox"/> | Basis of the report   |
| II   | <input type="checkbox"/>            | Priority  |
| III  | <input type="checkbox"/>            | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| IV   | <input type="checkbox"/>            | Lack of unity of invention  |
| V    | <input checked="" type="checkbox"/> | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| VI   | <input type="checkbox"/>            | Certain documents cited   |
| VII  | <input type="checkbox"/>            | Certain defects in the international application  |
| VIII | <input type="checkbox"/>            | Certain observations on the international application   |

Date of submission of the demand 29 March 2004	Date of completion of the report 13 April 2004
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <b>Jonathan Lewis</b> Telephone No. (02) 6283 2063

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☒ the international application as originally filed.
- ☐ the description,    pages    , as originally filed,  
                                 pages    , filed with the demand,  
                                 pages    , received on    with the letter of
- ☐ the claims,    pages    , as originally filed,  
                                 pages    , as amended (together with any statement) under Article 19,  
                                 pages    , filed with the demand,  
                                 pages    , received on    with the letter of
- ☐ the drawings,    pages    , as originally filed,  
                                 pages    , filed with the demand,  
                                 pages    , received on    with the letter of
- ☐ the sequence listing part of the description:  
                                 pages    , as originally filed  
                                 pages    , filed with the demand  
                                 pages    , received on    with the letter of

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description,    pages
- ☐ the claims,    Nos.
- ☐ the drawings,    sheets/fig.

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1-10	YES
	Claims	NO
Inventive step (IS)	Claims 1-10	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-10	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)**

D1: WO 1992/012268

D2: GB 2198722

D3: WO 1992/020469

1. Independent Claim 1 discloses a method of treating a spent potliner by crushing and classifying the potliner, heating the potliner in a furnace at greater than 450°C, then mixing the residue with water to cure the residue.

D1 discloses a process for recovering aluminium and fluoride values from spent potliners. This document discloses heating spent potliners and subjecting the residue to a leaching step in order to produce a leach liquor from which an aluminium fluoride product may be precipitated. As a result, Claim 1 is novel in light of D1.

D2 discloses a process for recovering fluoride values from spent potliners, by heating the potliners to produce an ash which is treated by a sulpholysis reaction to produce a gaseous fluoride-rich product. As a result, Claim 1 is novel in light of D2.

D3 discloses a process for the treatment of spent potliners whereby the liners are crushed and combusted, before mixing the ash with chemically reactive compounds and heating to produce a heat-treated ceramic material. As a result, Claim 1 is novel in light of D3.

Claims 2-10 are also novel in light of the disclosure of D1-D3.

The invention defined in the present claims involves an inventive step over the disclosure of the prior art.

2. The present claims are directed towards a method of treating a spent potliner and therefore have industrial applicability.